



wienet

INDUSTRIAL COMMUNICATION

Easy remote access, industrial connectivity,
data collection and machine operation.

HELLO WIELAND ELECTRIC

Tradition and innovation - Wieland is representing the synergy of these two guiding principles for more than 100 years.

At Wieland Electric, we are proud to be the world market leader in electrical connections, and have been focusing on safe and innovative technologies since our founding. The beginnings of our success lie in the legendary Wieland Clamp, the first-ever safe electrical connector. Since then, innovation has pushed us to develop safer and more efficient ways to electrify the world.

Expanding from a component-only manufacturer, we are now one of the leading suppliers of innovative, future-oriented, and complete electrical solutions.

The focus here is on the “Installation Systems” and “Safety Automation” sectors. The Installation Systems sector focuses on decentralized energy distribution in modular construction, building automation, EV charging and lighting solutions. In the Safety Automation sector, the focus is on systems and services for the functional safety of machines in the mechanical engineering and wind power sectors.

We are at our customers’ side in every step of the project, right from the start. Our experts offer consulting, on-site services, and technical support. We see ourselves as service providers, trainers and subject-matter experts.



1910

Founded in
Bamberg



1700+

Employees
worldwide



70+

Countries
worldwide

CONTENTS

04	Ready for Digitalization – secure connection to the Internet
06	Automation solutions for your machines + plants
08	Security router + VPN licenses ordering overview
10	Switches ordering overview
12	Touch panels + accessories ordering overview
14	wienet security router
20	Remote maintenance VPN portal WIE-SERVICE24
26	Industrial ethernet switches - managed und unmanaged
29	wienet fiber optic (LWL)
32	wienet UMS Serie - unmanaged fast ethernet switche
34	wienet UMS-G serie - unmanaged gigabit switches
40	wienet FS serie - industrial protocol switches
44	wienet hmi touch panels
51	Accessories
55	Information and contact



SECURE **NETWORK TECHNOLOGY** FOR **DIGITALIZATION** - RELIABLY CONNECTED, FLEXIBLY DEPLOYABLE.

The global use of machines requires reliable communication in order to avoid expensive on-site service calls. Modern production processes require networks for smooth data exchange. With the communication solutions from Wieland Electric, remote access to your automation devices is possible at any time and anywhere in the world.

Collecting machine and plant data is essential for competitive market performance. This is the only way to enable predictive maintenance and continuously improve your machines and plant performance. With wienet IoT solutions, we empower you to do just that. Our HMI's ensure optimal on-site control directly at the source of the data.

At the same time, the wienet product family allows you to organize data traffic within your Ethernet network and reliably control which data is allowed to leave the network. Fail-safe routers and powerful switches ensure stable, secure, and prioritized communication – even under harsh industrial conditions. All devices in the wienet product family are robustly designed and ideally suited for industrial use.

SPECIALLY SUITABLE FOR

- + Machine networking
- + Harsh industrial environments
- + Active monitoring

PRODUCTS FOR:

- + MACHINE BUILDING
- + WATER AND WASTE
WATER MANAGEMENT
- + PROCESS INDUSTRY
- + BUILDING AUTOMATION
- + E-MOBILITY
- + TRAFFIC INFRA-
STRUCTURE
- + VIDEO MONITORING
- + SMART GRID
- + WIND POWER PLANTS
- + CHARGING STATIONS



AUTOMATION SOLUTIONS FOR YOUR MACHINES + PLANTS.



VPN-ROUTERS

When remote access to your machines and plants is required, encrypted VPN connections are the answer.

Security VPN routers enable secure and encrypted remote access to all devices in your machine network.

The VPN portal WIE-SERVICE24 is the command center for this and manages all your VPN connections.



MACHINE OPERATION USING HMI

Touch panels are today used in many machines and systems for the visualization, operation, and diagnosis. By transferring the user habits from the consumer world into the automation world, the HMI ECO series has been especially developed for industrial requirements and needs. Make the machine the flagship of your company with your own logo on the operating unit.



SWITCHES

Reliable and highly available machine communication is the basis for the reliable operation of your machine. Choose unmanaged switches to simply network devices, or our managed industrial protocol switches for the integration into your automation environment.





WIENET SECURITY ROUTER

INDUSTRIAL MOBILE ROUTER 4G LTE V2



Type	Art. No.
wienet LTE LR140 EMEA	83.041.0140.1
wienet LTE LR240 EMEA	83.041.0240.1
wienet LTE LR241 EMEA	83.041.0241.1

INDUSTRIAL ROUTER WITH EXPANDED FUNCTION



Type	Art. No.
wienet LTE ER300	83.041.0300.1
wienet LTE LR340	83.041.0340.1

VPN LICENSES



Type	Art. No.
wienet VPN V3 - single VPN license	ZD.000.0020.5
wienet VPN V3 - 10 VPN licenses	ZD.000.0021.5
wienet VPN V3 - 25 VPN licenses	ZD.000.0022.5
wienet VPN V3 - 50 VPN licenses	ZD.000.0023.5
wienet VPN V3 - 100 VPN licenses	ZD.000.0024.5

Interfaces	Antenna ports	Dimensions W x H x D (mm)
1x LAN, DI, DO, 1x SIM	ANT, DIV	25 x 103 x 95
2x LAN, DI, DO, RS232, RS485, 2x SIM	ANT, DIV	25 x 103 x 95
2x LAN, DI, DO, RS232, RS485, 2x SIM	ANT, DIV, WIFI	25 x 103 x 95

Page
18

Interfaces	Antenna ports	Dimensions W x H x D (mm)
2x ETH, 1x RS232, 1x RS485, 1x I/O	-	31.2 x 129 x 94
2x ETH, 1x RS232, 1x RS485, 1x I/O, 2x SMA	ANT, DIV	31.2 x 129 x 94

Page
19

Service description
VPN client single license for router, IoT gateway, PC or mobile device
10 VPN client licenses for router, IoT gateway, PC or mobile device
25 VPN client licenses for router, IoT gateway, PC or mobile device
50 VPN client licenses for router, IoT gateway, PC or mobile device
100 VPN client licenses for router, IoT gateway, PC or mobile device

Page
22

WIENET SWITCHES

FAST ETHERNET SWITCHES UMS SERIES



Model	Art. No.	10/100 Mbps
wienet UMS 5	83.040.1001.0	5x RJ45
wienet UMS 5-L	83.040.0129.1	5x RJ45
wienet UMS 6	83.040.0000.0	6x RJ45
wienet UMS 6-L	83.040.0000.1	6x RJ45
wienet UMS 8	83.040.0001.0	8x RJ45
wienet UMS 8-C	83.040.1281.0	8x RJ45
wienet UMS 8-W-M12	83.040.1600.0	8x M12
wienet UMS 4-1FM	83.040.0002.0	4x RJ45
wienet UMS 4-1FS	83.040.0003.0	4x RJ45
wienet UMS 4-C-2SC-FM	83.040.1252.0	4x RJ45
wienet LMS 16	83.040.1334.0	16x RJ45

GIGABIT SWITCHES UMS-G SERIES



Model	Art. No.	10/100 Mbps
wienet UMS 5G	83.040.0130.0	-
wienet UMS 5G-L	83.040.0130.1	-
wienet UMS 5G-4PoE	83.040.0131.0	-
wienet UMS 5-C-4G-1SFP-W	83.040.1256.0	-
wienet UMS 6-C-1G-4PoE-1SFP-W	83.040.1268.0	4x RJ45
wienet UMS 8G	83.040.0106.0	-
wienet UMS 8G-C	83.040.1283.0	-
wienet UMS 16-2G	83.040.0160.0	14x RJ45
wienet UMS 20-16G-4SFP-W	83.040.1223.0	-

INDUSTRIAL PROTOCOL SWITCHES FS SERIES



Model	Art. No.	10/100 RJ45 ports
wienet FS 8-EI	83.040.1500.0	8
wienet FS 8-PN	83.040.1510.0	8
wienet FS 16-PN	83.040.1511.0	16

10/100/1000 RJ45 ports	FOC/SFP ports	PoE ports	Dimensions W x H x D (mm)
-	-	-	30 x 120 x 95
-	-	-	25 x 94 x 72
-	-	-	45,3 x 90 x 90,5
-	-	-	45 x 90 x 80
-	-	-	45.3 x 90 x 90.5
-	-	-	30 x 140 x 95
-	-	-	62 x 194 x 25
-	1 x ST (multi mode)	-	45.3 x 90 x 90.5
-	1 x SC (single mode)	-	45.3 x 90 x 90.5
-	2 x SC (multi mode)	-	37 x 140 x 95
-	-	-	74 x 120 x 84

Page
34

10/100/1000 RJ45 ports	FOC/SFP ports	PoE ports	Dimensions W x H x D (mm)
5	-	-	32 x 90 x 110
5	-	-	23 x 94 x 72
5	-	4	45.3 x 90 x 110
4	1	-	30 x 140 x 95
1	1	4	30 x 140 x 95
8	-	-	45.3 x 90 x 90.5
8	-	-	30 x 140 x 95
2	-	-	54 x 113 x 135
16	4	-	74 x 152 x 105

Page
38

10/100/1000 RJ45 ports	SFP ports	PoE ports	Additional info	Dimensions W x H x D (mm)
-	-	-	Ethernet IP	43 x 120 x 84
-	-	-	ProfiNET	43 x 120 x 84
-	-	-	ProfiNET	74 x 120 x 84

Page
42

WIENET HMI ECO TOUCH PANELS



Type	Art. No.
HMI-ECO-043	83.050.0000.0
HMI-ECO-070	83.050.0001.0
HMI-ECO-100	83.050.0002.0
HMI-ECO-120	83.050.0003.0
HMI-ECO-150	83.050.0004.0

ACCESSORIES



Type	Art. No.
MPI-ETH ADAPTER ACCON-NETLINK-PRO	F0.000.0031.8
wienet ANTENNA 15863V2 ROOF ANT.	F0.000.0035.1
wienet ANTENNA 15018 MAGNETIC HOLDER	F0.000.0036.1
wienet ANTENNA 150181V2 ANTENNA ROD	F0.000.0036.2
wienet ANTENNA 15854 WIFI MAGNET ANT.	F0.000.0037.4
wienet ANTENNA 15874V2 WIFI ROOF ANT.	F0.000.0037.5
wienet ANTENNA 15862V2 PANEL ANT.	F0.000.0037.6
wienet ANTENNA 15815V2	F0.000.0036.7
wienet RJ45 extender	80.000.3002.0
wienet PATCH-CABLES MOD ZBH RJ45	78.999.4x00.0
wienet DIN RAIL CLIP LR/ER MET	F0.000.0053.8

SFP TRANSCEIVER



Model	Art. No.
wienet SFP G MM VCSEL	83.040.0710.0
wienet SFP G MM FP	83.040.0711.0
wienet SFP G SM FP	83.040.0712.0
wienet SFP F/E (auto-neg) RJ45	83.040.0715.0

Monitor size in inch	Resolution in pixels	Dimensions W x H x D (mm)
4.3	480 x 272	129 x 103 x 33
7	800 x 480	203.8 x 148.8 x 37.1
10	1024 x 600	270.1 x 212.1 x 43.5
12.1	1024 x 768	335.4 x 245.8 x 58.2
15	1024 x 768	399.1 x 297.6 x 57.5

Page
50

Description
Programming adapter for Siemens controllers from MPI/Profibus to Ethernet
Mobile radio antenna 2G, 3G, 4G roof antenna, suitable for outdoor installation
Magnetic holder for mobile radio antennas
Mobile radio antenna 2G, 3G, 4G for installation on magnetic holder
WIFI antenna with magnetic holder
WIFI antenna, roof antenna
Mobile radio antenna, panel antenna 2G, 3G, 4G, powerful (+5dBi) LTE antenna
Extension for antenna 10 m low-loss cable
CAT.5 interface module RJ-45 socket to RJ-45 socket
Patch-cables RJ45, different lengths (x = m see chart)
DIN rail adapter for routers

Page
51

Media type	Data rate
Glass fiber multi mode (850 nm)	1250 Mbps
Glass fiber multi mode (1310 nm)	1250 Mbps
Glass fiber single mode (1310 nm)	1250 Mbps
Copper	10/100/1000 Mbps

Page
53

WIENET SECURITY ROUTER

Remote access to local networks is the communication basis for almost any Industry 4.0 or IoT application.

With wienet security routers and the VPN server portal WIE-Service24, machines and devices are securely connected to the Internet and the encrypted transfer of data via VPN is ensured.



- + Direct connection of terminal devices via local Ethernet network or serial interface
- + Remote access with original manufacturer software without additional programs
- + Access to the Internet via LAN, mobile radio or WLAN
- + Secure data connection thanks to latest encryption technology
- + Reliable transfer of alarms via SMS or e-mail



PERFORMANCE FEATURES

- | | |
|--------------------------|--|
| + Internet connection | LAN-LAN, WLAN, mobile communications |
| + Mobile radio standards | LTE 4G |
| + VPN protocols | open VPN, IpSec, L2TP, GRE (PPTP, easyVPN) |
| + Operating temperature | -40 °C to +75 °C |



CE E8

WIENET – EASY REMOTE MAINTENANCE.

One of the top goals of any machine builder today is the ability for remote maintenance of machines and systems. This reduces maintenance costs drastically and optimizes machine availability for the customers. The wienet Security VPN routers have been specifically designed for the easy remote maintenance of machines and installations at customer locations or satellite stations using the Internet. This means, that OEMs and system integrators can troubleshoot machines with remote maintenance without the need for them being on site.



REMOTE ACCESS USING SECURE VPN CONNECTIONS

The Security VPN routers from Wieland enable the secure access to machines and systems by using encrypted VPN connections, supporting the standard VPN technologies OpenVPN and IPsec. Up to four VPN channels can be operated simultaneously.

The interaction with the VPN server portal WIE-Service24 v3 has been optimized for VPN operation.



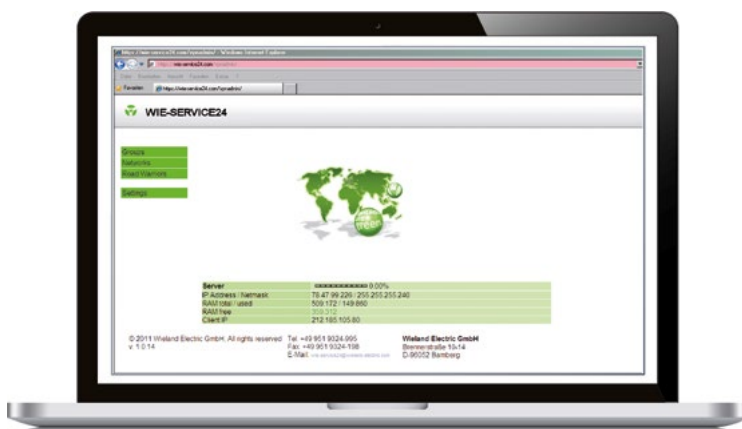
CONTROLLING AND MONITORING THE VPN CONNECTIONS

All wienet VPN routers (except the compact models) have digital inputs and outputs. With one input, for example, the VPN connection can be controlled via an PLC output or with a key switch. The digital output can be used as a switching output or status output. The VPN mobile routers can be controlled with SMS commands.



WEB-BASED USER INTERFACE

All wienet VPN routers are configured with a web-based user interface. This means that it can be operated with any standard browser without the need for installing extra software.



VERSATILE APPLICATIONS:

- **Energy supply**
Wind turbines, solar farms, transformer stations, combined heat and power units, biogas cogeneration systems, heat pumps, ...
- **Water and waste water management**
- **System monitoring in machine building**
Washing systems, compressors, packaging machines, ...
- **External surveillance camera**
- **Vending**
Online telemetry of sales or ticket vending machines
- **Mobile fleet management**
- **Smart metering**



READY-BUILT ROUTER APPS FOR EVEN MORE FUNCTIONS.

The functions of the wienet VPN routers can be expanded using preassembled software router apps.

We utilize the experiences we and our customers have gathered in recent years and offer our customers useful applications as free router apps. These effectively expand the user interface. You do not have to change or implement any program code, but can use the functions immediately and with ease.

EXAMPLES FOR ROUTER APPS:

- + Azure IoT SDK Python
- + Node-RED*
- + Node-RED FTP Node*
- + Node-RED MQTT Node*
- + Diverse protocol converters
- + Layer2 Firewall
- + Modbus Logger



Please contact our wienet Service-Center industry@wieland-electric.com for the complete list of all available router apps.

INDUSTRIAL MOBILE ROUTER · WIENET 4G LTE V2

TECHNICAL DATA



Description	wienet LR140 EMEA*	wienet LR240 EMEA	wienet LR241 EMEA
Art. No.	83.041.0140.1	83.041.0240.1	83.041.0241.1

VPN mobile router interfaces

Ethernet	1x 10/100 Mbit/s	2x 10/100 Mbit/s	2x 10/100 Mbit/s
SIM slot	1x micro SIM 3FF	2x micro SIM 3FF	2x micro SIM 3FF
Serial interfaces	-	1x RS232, 1x RS485	1x RS232, 1x RS485
Digital inputs	1x DI 36 V DC / 0.5 mA	1x DI 36 V / 0.5 mA	1x DI 36 V / 0.5 mA
Digital outputs	1x DO 100 mA / max. 36 V DC	1x DO 100 mA / max. 36 V DC	1x DO 100 mA / max. 36 V DC
WiFi/WLAN	-	-	IEEE802.11 ac/b/g/n 2.4GHz / 5GHz (SMA)
Antenna ports	ANT(SMA), DIV(SMA)	ANT(SMA), DIV(SMA)	ANT(SMA), DIV(SMA)
LED indication	PWR, USR, DI, DO, DAT, SIG, TECH, SIM	PWR, USR, DI, DO, DAT, SIG, TECH, SIM	PWR, USR, DI, DO, DAT, SIG, TECH, SIM

Technical features

Network connection	LTE	LTE	LTE
Networks	DHCP, NAT/PAT, SSH, VRRP, PPPoE, SNMP, SMTP, Dynamic DNS client, DNS proxy, VLAN, QoS, NTP Client/Server, Backup Routes, Port Forwarding, Host Port Routing, Ethernet Bridging, Load Balancing, IPv6 Dual Stack	DHCP, NAT/PAT, SSH, VRRP, PPPoE, SNMP, SMTP, Dynamic DNS client, DNS proxy, VLAN, QoS, NTP Client/Server, Backup Routes, Port Forwarding, Host Port Routing, Ethernet Bridging, Load Balancing, IPv6 Dual Stack	DHCP, NAT/PAT, SSH, VRRP, PPPoE, SNMP, SMTP, Dynamic DNS client, DNS proxy, VLAN, QoS, NTP Client/Server, Backup Routes, Port Forwarding, Host Port Routing, Ethernet Bridging, Load Balancing, IPv6 Dual Stack
VPN	WireGuard, OpenVPN, IPsec with IKEv1 and IKEv2, GRE, L2TP, PPTP	WireGuard, OpenVPN, IPsec with IKEv1 and IKEv2, GRE, L2TP, PPTP	WireGuard, OpenVPN, IPsec with IKEv1 and IKEv2, GRE, L2TP, PPTP
Configuration and diagnostics	Web-Interface, SSH	Web-Interface, SSH	Web-Interface, SSH

Technical data

CPU	ARM926EJ-S (600 MHz)	ARM926EJ-S (600 MHz)	ARM926EJ-S (600 MHz)
Memory	64 MB flash memory, 128 MB RAM	64 MB flash memory, 128 MB RAM	64 MB flash memory, 128 MB RAM
Operating voltage min.-max.	9 - 48 V DC	9 - 48 V DC	9 - 48 V DC
Power consumption max.	10 W	10 W	10 W
Operating temperature	-40 °C...+75 °C	-40 °C...+75 °C	-40 °C...+75 °C
Storage temperature	-40 °C...+85 °C	-40 °C...+85 °C	-40 °C...+85 °C
Rel. humidity during operation min.-max. (non-condensing)	0...95 %	0...95 %	0...95 %

Dimensions

Width (mm)	25	25	25
Height (mm)	103	125	125
Depth (mm)	95	95	95
Weight approx.	290 g	300 g	300 g

GENERAL TECHNICAL DATA FOR THE SERIES

Mounting method	DIN rail, wall mount
Protection class	IP30
Housing material	Metal
RoHs	Yes
Norms and approvals	CE

INDUSTRIAL LAN ROUTER · WIENET LTE

TECHNICAL DATA



Description	wienet LAN ER300 GLOBAL	wienet LTE LR340 EMEAI
Art. No.	83.041.0300.1	83.041.0340.1
VPN LAN router interfaces		
Ethernet	2x 10/100 Mbit/s	2x 10/100 Mbit/s
SIM slot	-	2
Digital inputs	1x DI 36 V DC / 0.5 mA	1x DI 36 V DC / 0.5 mA
Digital outputs	1x DO Open Drain, 36 V DC / 100 mA	1x DO Open Drain, 36 V DC / 100 mA
Antenna ports	-	2x SMA-Socket (1x Main, 1x Diversity)
LED indication	PWR, USR	PWR, USR, DAT, SIG, SIM1, SIM2
Serial interfaces	1x RS232, 1x RS485	1x RS232, 1x RS485
Technical features		
Network connection	10/100 Mbit RJ-45	10/100 Mbit RJ-45
Networks	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS
VPN	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE
Configuration and diagnostics	Web interface, SMS, e-mail, SSH, SNMP v1/v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/v2c/v3, status
Technical data		
Operating voltage min.-max.	9 - 36 V DC	9 - 36 V DC
Power consumption max.	5 W	5.8 W
Operating temperature	-40 °C...+75 °C	-40 °C...+75 °C
Storage temperature	-40 °C...+85 °C	-40 °C...+85 °C
Rel. humidity during operation min.-max. (non-condensing)	5...95 %	5...95 %
Dimensions		
Width (mm)	30	31.2
Height (mm)	129	129
Depth (mm)	94	94
Weight approx.	457 g	480 g

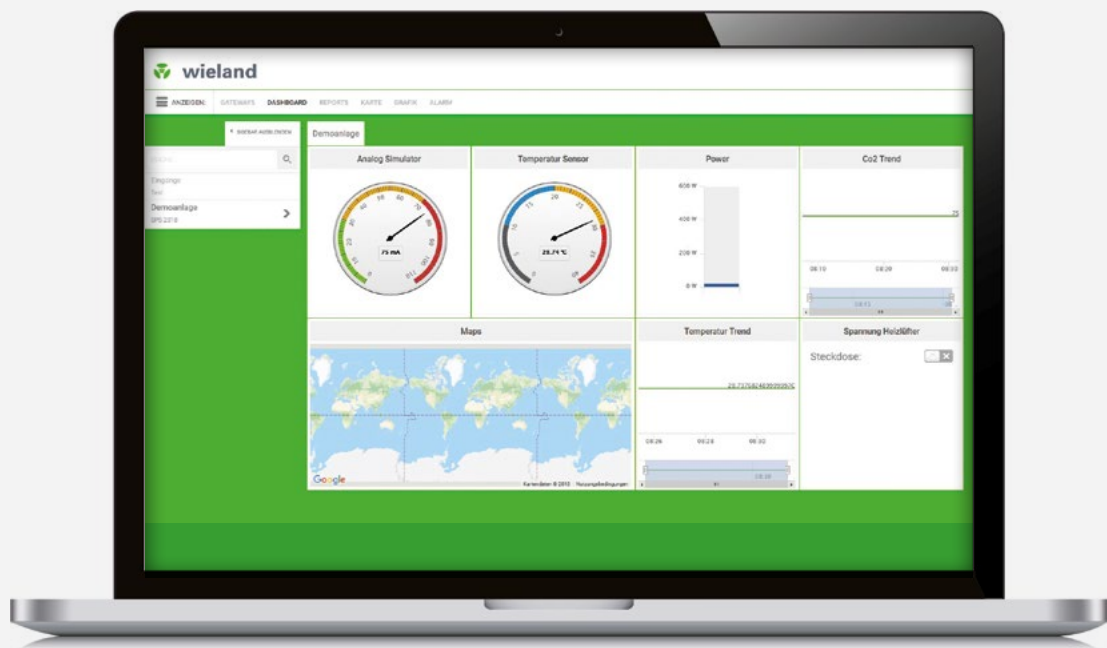
GENERAL TECHNICAL DATA FOR THE SERIES

Mounting method	DIN rail, wall mount
Protection class	IP30
Housing material	Metal
RoHs	Yes
Norms and approvals	CE, E8

WIE-SERVICE24

VPN-SERVICEPORTAL

The WIE-SERVICE24 VPN portal enables secure and flexible remote access to machines and systems worldwide. Whether in manufacturing, wind farms, solar power plants, or other widely distributed infrastructures, this system allows you to perform maintenance work, diagnostics, and software updates remotely in real time. This saves time, minimizes downtime, and reduces the need for on-site visits.



- + Encrypted VPN access for a secure connection to machines and systems – worldwide and around the clock
- + Immediate remote diagnostics and maintenance minimize downtime and service costs
- + Ideal for individual machines or complex systems – flexibly expandable as required
- + Clear web portal with real-time user, device and connection management



FEATURES

- + The first 30 VPN licenses are free of charge
- + Operation of the cloud-based VPN server conforming to the GDPR.
- + Automated daily backups are created
- + 2-factor authentication

REMOTE MAINTENANCE VIA WIENET VPN PORTAL.

The wienet VPN portal is the pivotal element where all VPN connections are managed. The VPN connections are based on OpenVPN. The VPN end devices (router, PC, smartphone, ...) require a VPN configuration file, which is generated in the wienet VPN portal and made available to the user. After the implementation, the end devices establish an outgoing, encrypted VPN tunnel to the wienet VPN portal. The assignments of who is allowed to communicate with who are also specified in the wienet VPN portal. Users can be created and rights can be assigned in the user management.

FEATURES OF THE WIENET VPN PORTAL



SECURE CONNECTION

The wienet VPN portal ensures the secure connection of your machines and systems: The individual specification of the access rights and encryption of the VPN connections protects your machines and systems. Tedious, error-prone manual router configuration is no longer necessary. Remote access can be accomplished with any Internet-capable PC or smartphone.

The first 30 VPN licenses are free of charge!



THE LICENSE MODEL IN DETAIL

After the test phase with only one or very few VPN end devices, you have up to 30 additional VPN client licenses at your disposal for free, which you can use to let several persons and machines communicate with each other securely using an encrypted VPN connection.

Please specify the desired number of licenses or VPN clients in your order or contact your Wieland contact person to optimally coordinate your application.



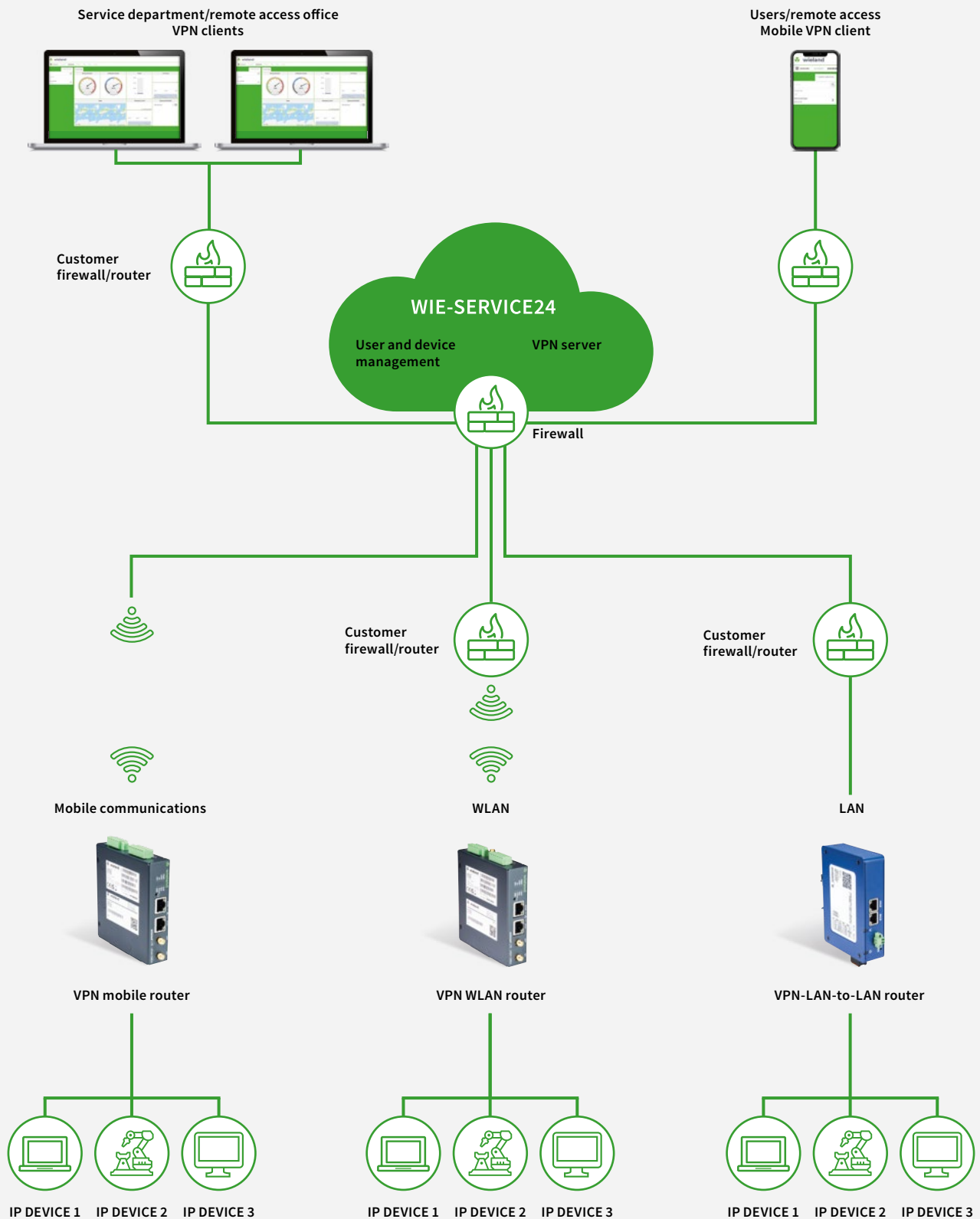
TEST ACCESS

The wienet VPN portal can be tested free of charge in connection with the wienet VPN routers.

Please get in touch with your wienet VPN contact at Wieland Electric under industry@wieland-electric.com or by phone with our Telesales telephone: +49 951 9324-991.

You will be provided with a VPN end device for a limited time + wienet VPN portal access (several VPN end devices on request).

WIE-SERVICE24 APPLICATION



REMOTE MAINTENANCE VIA WIENET VPN PORTAL.

M2M DEVICE MANAGEMENT IN THE CLOUD

Complete systems, machines and networks can be connected to each other with our VPN service portal. The individual specification of the access rights and the encryption of the VPN connections protects your machines and systems.

You set up the authorization management in seconds, individually for each device. The VPN service portal is so easy to use that users do not need in-depth knowledge of networks. WIE-SERVICE24 as one of the first software solutions for VPN service portals is a proven system for remote maintenance and has been undergoing a massive overhaul. User feedback was directly considered in the development of the current version 3.

FEATURES OF THE WIENET VPN SERVER



PERFORMANCE

Intel Skylake Xeon CPUs together with fast NVMe SSDs provide highest performance. High-speed thanks to redundant 10 Gbit network connection.



DAILY BACKUPS

Backups are created daily to ensure the recovery of an environment in case of an unexpected failure.



DDOS PROTECTION

The server is protected from DDoS attacks to the greatest possible extent thanks to comprehensive hardware applications and a complex filtering technology.



DATA PROTECTION

Operation of the cloud-based VPN server conforming to the GDPR.



EASY USER NAVIGATION

Clear, compact interface (with “one-page” feel) enables an easier and more intuitive user operation. Users can, as a brand new feature, create own accesses, which provides enhanced flexibility.



MORE TECH. FEATURES

- Secure networking based on proven and open standards
- 2-factor authentication
- Multi routing (≥ 2 subnets for each VPN tunnel)
- Flexible expansion of an exploited VPN IP address range

ACCESS PERMISSIONS

Access to the complete IP network behind the router is possible from any desktop and tablet computer via the VPN center. This can be complete systems, for example. Routing from one LAN to another LAN (site-to-site VPN) is also possible. This is a skillful workaround to avoid address conflicts during IP configuration in the connected local networks.



Figure: Access permissions

ENHANCED USER MANAGEMENT

The new, enhanced user management is particularly remarkable. In WIE-SERVICE24 v3, customers can for the first time create accounts for their customers and inherit the complete scope of functions. In these cases, users only see their own systems and/or VPN accesses.

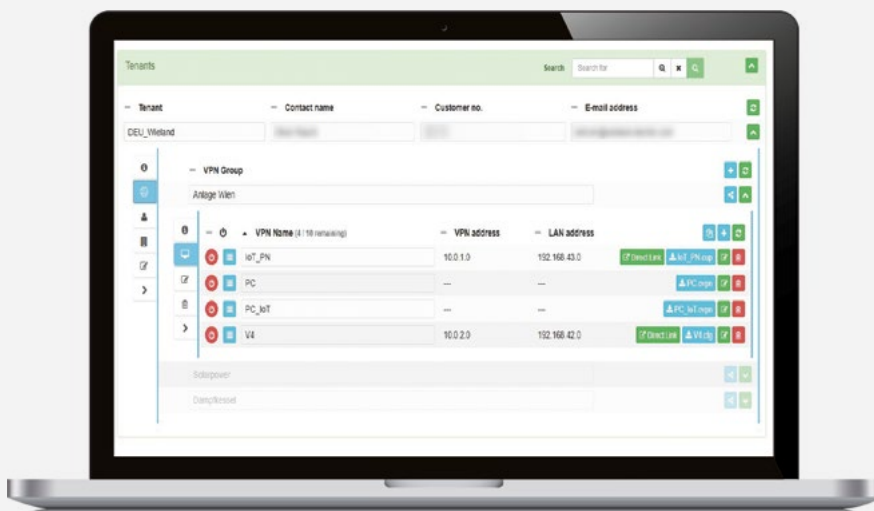


Figure: Simplified user management (one-page design)

WIENET INDUSTRIAL ETHERNET SWITCHES

Ethernet connections are part of many areas of life. The communication between components in automation technology is being increasingly realized using industrial Ethernet, a technology that is becoming more and more prevalent. Ethernet switches are now widely used for the secure networking and coupling between machines or within the system. The common goal of manufacturer and user is to design the networking and configuration of the components more simply and more effectively, and to systematically manage the data flow.

Industrial switches differ from normal switches in various features, all of which are extremely relevant to the industry. With this type of installation, they are usually mounted on a DIN top-hat rail, extended temperature ranges and sometimes redundant power inputs. They are also usually smaller, so they can be accommodated in applications with limited installation space.



- + Redundant power supply
- + Full compatibility in accordance with IEEE 802.3, incl. Autocrossing, Autonegotiation, Autosensing, Autopolarity
- + Complete diagnosis display via various LEDs
- + Compact, robust design
- + Top-hat rail mounting or screw fastening
- + High protection class (IP30)
- + PoE variants
- + Advanced variants (QoS, Jumbo Frame)

FUNCTIONS MATRIX

COMPLEXITY ↓ MANAGED UNMANAGED	MODEL	OPTIONAL
	 WIENET UMS SERIES UNMANAGED SWITCHES	POE PORTS
	 WIENET UMS-G SERIES UNMANAGED SWITCHES GIGABIT	POE PORTS
	 WIENET FS SERIES FIELDBUS SWITCHES	



UNMANAGED SWITCHES ARE IDEAL FOR:

- + Quick, simple commissioning
- + Small networks (manageable data volumes)
- + Use in restricted areas
- + Simple interface conversion
- + Applications without the need for remote diagnosis
- + Cost-effective applications



MANAGED SWITCHES ARE REQUIRED WHEN:

- + Switches are integrated in a monitoring system
- + In constantly expanding networks, monitoring is desirable and early fault detection is required in case of malfunction
- + LAN traffic has to be prioritized to safeguard the most important information
- + The integration into an existing Profinet network is to be implemented
- + The switch is intended to be integrated into the TIA project

WIENET POWER OVER ETHERNET

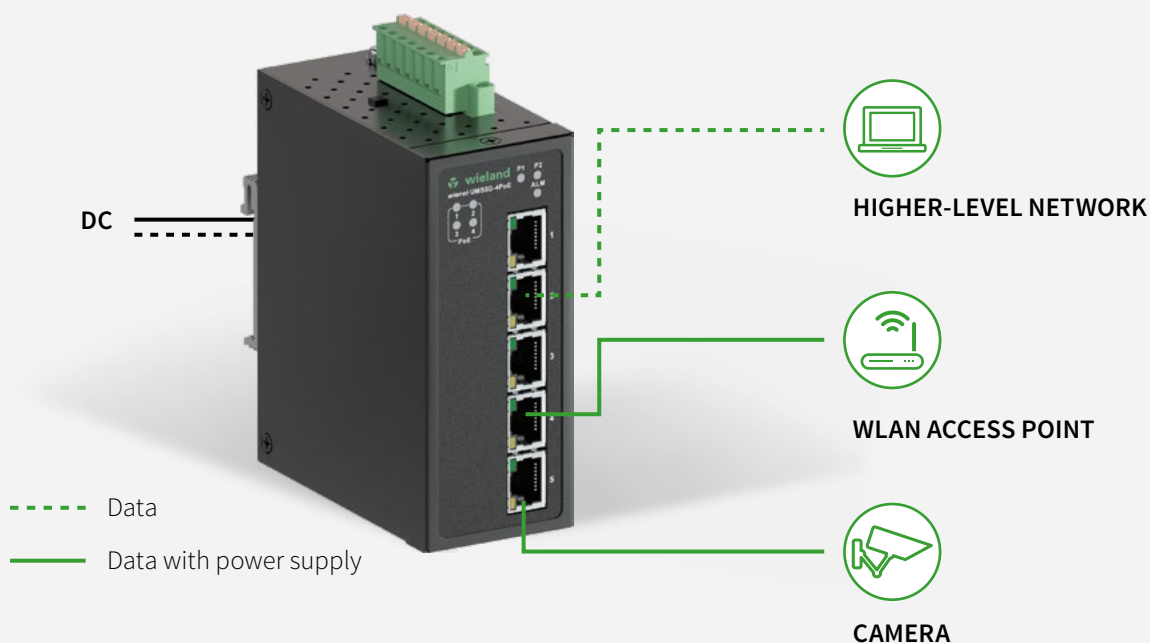
Power over Ethernet (PoE) technology makes it easier to set up networks. The same Ethernet cabling is used for both the power supply and data transmission. This technology enables the simplest possible installation or expansion of new or existing networks.

PoE is an intelligent and extensive technology for the power supply. Only suitable consumers are supplied with the required voltage and monitored as well. In case of malfunctions, such as short-circuit or overload, or in case of a physical

supply isolation, the components supplied with voltage are shut-down automatically.

This function can also be used for the very simple and, above all, efficient, remote control and monitoring of consumers.

wienet Power over Ethernet switches enable energy and data to be transferred, in accordance with IEEE 802.3, on one Ethernet line.

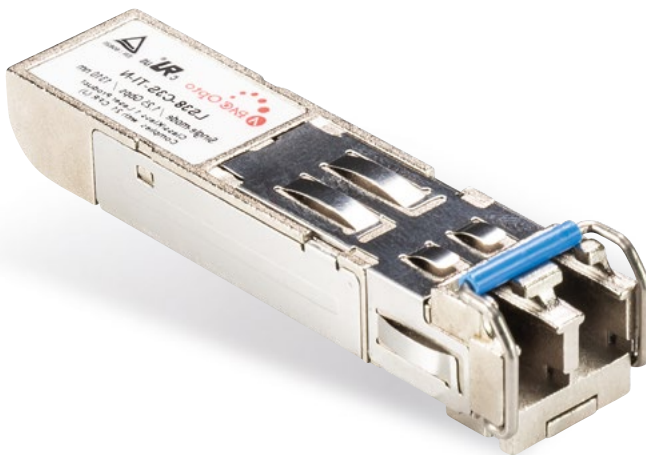


SUITABLE FOR

- + IP network cameras
- + WLAN access points
- + VoIP telephony
- + Scanners and RFID sensors
- + Anywhere where voltage supply for network devices is difficult

WIENET FIBER OPTICS

Modern communication and information technology demands increasingly larger transmission bandwidths and booster-free, bridgeable section lengths. The requirements for interference resistance are increasing alongside rising disturbance levels. These potentially conflicting demands can only be properly fulfilled with message transmission over fiber optic cables (FOC).

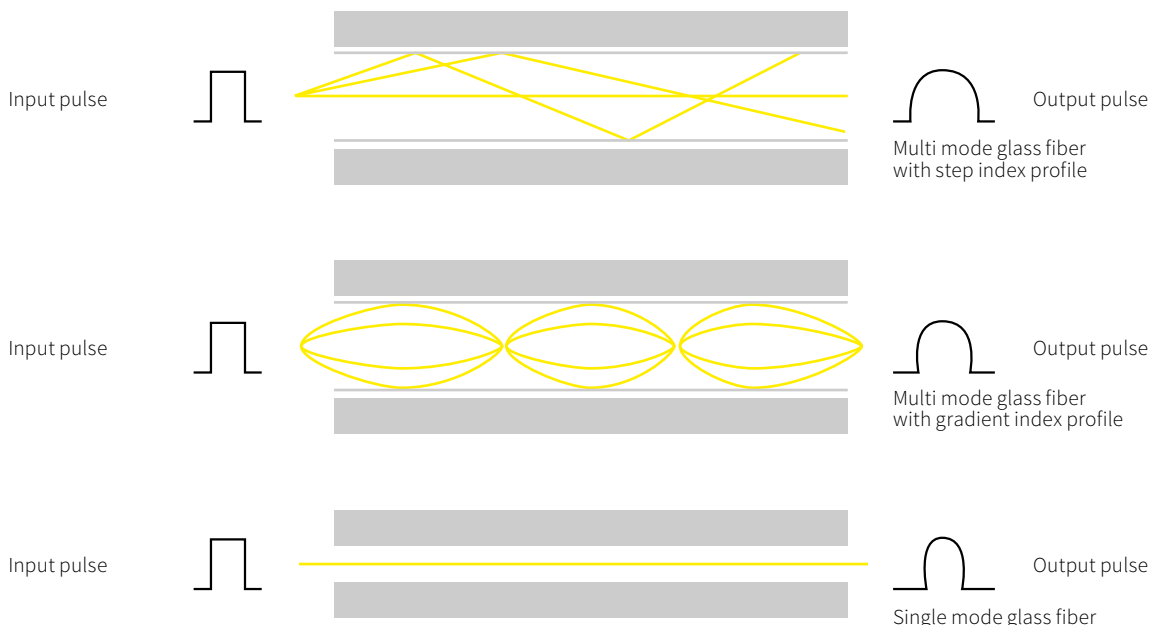


THE BENEFITS TO YOU:

- + Ideal for long transmission sections and high bandwidths
- + EMC problems are avoided
- + Galvanically isolated potentials
- + Lightning and explosion protection, tap-proof
- + No crosstalk between the fibers
- + SFP modules for the correct FOC connection

REALIZABLE LENGTHS WITH FIBER-OPTIC TECHNOLOGY

Fiber	Without connectors	One additional connector	Two additional connectors
Plastic Optical Fiber (POF)	50 m	43.5 m	37 m
Plastic Cladded Fiber (PCF)	100 m	100 m	100 m
Multi mode glass fiber	10 km	10 km	10 km
Single mode glass fiber	80 km	80 km	80 km



INCREASED REQUIREMENTS

Applications in harsh industrial environments require a robust and reliable network infrastructure. That's why wienet switches are equipped with features that exceed standard expectations.

Industrial Ethernet differs from the conventional network infrastructure in that it has to meet higher requirements for the communication devices used.

These requirements include:

- Installation conditions
- Ambient conditions
- Protocols
- Certificates / Approvals

The Industrial Ethernet Switches fulfill such requirements, including:

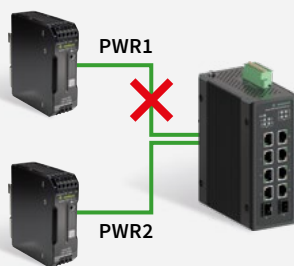
- Use in the expanded temperature range
- Reliable, redundant power supply for interruption-free communication
- High resistance to electromagnetic disruptions
- Immunity to vibrations and impacts
- Compliance with various certification standards



REDUNDANT POWER SUPPLY INPUTS FOR INDUSTRIAL APPLICATIONS

Two independent power supply inputs ensure the reliable function of the industrial network. All wienet switches have a broad input voltage range.

12 - 48 V DC
power supply



Backup
Power supply



USE UNDER EXTREME TEMPERATURE CONDITIONS

Extreme operating conditions often prevail in industrial environments. This calls for devices that work cleanly even under severe temperature fluctuations. Most wienet switches have a broad temperature operating range from -40 °C to +75 °C, allowing highly diverse network applications to be realized.



-40 °C



+75 °C



CERTIFIED TO INDUSTRIAL STANDARDS

The robust designs of Wieland Switches are able to achieve a very high standard with respect to electromagnetic compatibility. Many switches are certified to Level 3.

The majority of wienet switches are certified to higher levels and suitable for use with Profinet, Ethernet IP and Modbus TCP protocols.



EtherNet/IP™





UNMANAGED FAST ETHERNET SWITCHES **WIENET** UMS SERIES

wienet Unmanaged Fast Ethernet Switches cover standard functions, and are therefore a simple Plug & Play solution.

They are best suited for entry into industrial ethernet networks and an ideal and cost-effective solution for applications with manageable device subscribers having a low data flow.



- + Allow communication between Ethernet-capable devices
- + Relay information to the correct destination
- + Are supplied with fixed configuration
- + Connect peripheral devices in network extensions
- + Small, autonomous networks with just a few components
- + Star-topology network installation within the control panel



PERFORMANCE FEATURES

- | | |
|---------------------|----------------------------------|
| + Switch method: | Store and forward switching mode |
| + Switch functions: | Autocrossing, Autonegotiation |
| + Power supply: | Redundant power supply |
| + Bandwidth: | Fast Ethernet |
| + Connection: | Pluggable terminals |
| + Number of ports: | 5 to 16 ports |
| + Installation: | Top hat rail mounting |



UNMANAGED FAST ETHERNET SWITCHES · WIENET UMS

TECHNICAL DATA



Description	wienet	UMS 5-W	UMS 5-L	UMS 6-L	UMS 6	UMS 8	UMS 8-C	UMS 8-W-M12
Art. No.		83.040.1001.0	83.040.0129.1	83.040.0000.1	83.040.0000.0	83.040.0001.0	83.040.1281.0	83.040.1600.0

Technical data Ethernet

Number of ports	5	5	6	6	8	8	8
10/100 RJ45	5	5	6	6	8	8	-
10/100 M12	-	-	-	-	-	-	8
SFP	-	-	-	-	-	-	-
PoE	-	-	-	-	-	-	-

Switch properties

Transmission type	Store and Forward	Store and Forward	Store and Forward	Store and Forward	Store and Forward	Store and Forward	Store and Forward
Autonegotiation	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Autosensing	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Autopolarity	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Communication	Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex
Ethernet Standards IEEE	802.3/802.3u/802.3x	802.3/802.3u/802.3x/802.1q/p	802.3/802.3u/802.3x	802.3/802.3u/802.3x	802.3/802.3u/802.3x	802.3/802.3u/802.3x	802.3/802.3u/802.3x
QoS support, prioritization of Profinet packets	-	yes	yes	yes	yes	-	-
Broadcast storm protection	-	yes	yes	yes	yes	-	-
Transmission length	100 m	100 m	100 m	100 m	100 m	100 m	100 m
Topology	Line, star, mesh	Line, star, mesh	Line, star, mesh	Line, star, mesh	Line, star, mesh	Line, star, mesh	Line, star, mesh

Technical features

Operating voltage min.-max.	12 - 48 V DC	12 - 48 V DC	9 - 30 V DC	9 - 30 V DC	9 - 48 V DC	12 - 48 V DC	12 - 48 V DC
Redundant power supply	2 power inputs	2 power inputs	2 power inputs	2 power inputs	2 power inputs	2 power inputs	2 power inputs
Power consumption max.	4.5 W	4.5 W	4.5 W	4,5 W	5 W	5 W	2,5 W
Output with PoE ports max.	-	-	-	-	-	-	-
Operating temperature min.-max.	-40 °C...+75 °C	0 °C...+60 °C	0 °C...+60 °C	-10 °C...+60 °C	-10 °C...+70 °C	-10 °C...+60 °C	-40 °C...+75 °C
Storage temperature min.-max.	-40 °C...+85 °C	-20 °C...+70 °C	-20 °C...+70 °C	-40 °C...+85 °C	-40 °C...+85 °C	-40 °C...+85 °C	-40 °C...+85 °C
Rel. humidity during operation min.-max. (non-condensing)	10 - 95 %	5 - 95 %	5 - 95 %	5 - 95 %	5 - 95 %	5 - 95 %	5 - 95 %
Terminal type	Plug-in screw terminal	Push-in terminal, pluggable	Push-in terminal, pluggable	Push-in terminal, pluggable	Push-in terminal, pluggable	Push-in terminal, pluggable	M12 D-coded
Norms and approvals	FCC Part 15 Class A, CE, UL, cULus	FCC Part 15 Class A, CE, UL, cULus	FCC Part 15 Class A, CE, UL, cULus	FCC Part 15 Class A, CE, UL, cULus	FCC Part 15 Class A, CE, UL, cULus	FCC Part 15 Class A, CE, UL, cULus, EN 62368	FCC Part 15 Class A, CE, UL, cULus, EN 50155, IEC 61131-2
Mounting method	DIN Rail	DIN Rail	DIN Rail	DIN Rail	DIN Rail	DIN Rail	Wall
Protection class	IP30	IP30	IP40	IP30	IP30	IP30	IP67
Housing material	Metal	Metal	Plastic	Metal	Metal	Metal	Metal

Dimensions

Width (mm)	30	25	45	45.3	45.3	30	62
Height (mm)	120	94	90	90	90	140	194
Depth (mm)	95	72	80	80	80	95	25
Weight approx.	255 g	110 g	160 g	260 g	270 g	460 g	700 g

GENERAL TECHNICAL DATA FOR THE SERIES

Diagnosis display	LEDs
RoHs	Yes

UNMANAGED FAST ETHERNET SWITCHES · WIENET UMS

TECHNICAL DATA



Description	wienet	UMS 4-1FM	UMS 4-1FS	UMS 4-C-2SC-FM	LMS 16-W
Art. No.		83.040.0002.0	83.040.0003.0	83.040.1252.0	83.040.1334.0

Technical data Ethernet

Number of ports	4	4	6	16
10/100 RJ45	4	4	4	16
10/100 M12	-	-	-	-
FOC ports	1x ST (multi mode)	1x SC (single mode)	2x SC (multi mode)	-
PoE	-	-	-	-

Switch properties

Transmission type	Store and Forward	Store and Forward	Store and Forward	Store and Forward
Autonegotiation	Yes	Yes	Yes	Yes
Autosensing	Yes	Yes	Yes	Yes
Autopolarity	Yes	Yes	Yes	Yes
Communication	Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex
Ethernet Standards IEEE	802.3/802.3u/802.3x	802.3/802.3u/802.3x	802.3/802.3u/802.3x	802.3/802.3u/802.3x
QoS support, prioritization of Profinet packets	yes	yes	-	-
Broadcast storm protection	yes	yes	-	-
Transmission length	2 km	20 km	Ethernet: 100 m Optical: 2 km	100 m
Topology	Line, star, mesh	Line, star, mesh	Line, star, mesh	Line, star, mesh

Technical features

Operating voltage min.-max.	9 - 30 V DC	9 - 30 V DC	12 - 48 V DC	8.4 - 52.8 V DC
Redundant power supply	2 power inputs	2 power inputs	2 power inputs	2 power inputs
Power consumption max.	4.5 W	4.5 W	6.5 W	3.84 W
Output with PoE ports max.	-	-	-	-
Operating temperature min.-max.	-10 °C...+70 °C	-10 °C...+70 °C	-10 °C...+60 °C	-40 °C...+75 °C
Storage temperature min.-max.	-40 °C...+85 °C	-40 °C...+85 °C	-40 °C...+85 °C	-40 °C...+85 °C
Rel. humidity during operation min.-max. (non-condensing)	5 - 95 %	5 - 95 %	5 - 95 %	10 - 95 %
Terminal type	Push-in terminal, pluggable	Push-in terminal, pluggable	Push-in terminal, pluggable	Plug-in screw terminal
Norms and approvals	FCC Part 15 Class A, CE, UL, cULus	FCC Part 15 Class A, CE, UL, cULus	FCC Part 15 Class A, CE, UL, cULus UL 60950-1	FCC Part 15 Class A, CE, UL, cULus
Mounting method	DIN Rail	DIN Rail	DIN Rail	DIN Rail
Protection class	IP30	IP30	IP30	IP30
Housing material	Metal	Metal	Metal	Metal

Dimensions

Width (mm)	45.3	45.3	37	74
Height (mm)	90	90	140	120
Depth (mm)	80	80	95	84
Weight approx.	260 g	260 g	700 g	700 g

GENERAL TECHNICAL DATA FOR THE SERIES

Diagnosis display	LEDs
RoHs	Yes

UNMANAGED GIGABIT SWITCHES

WIENET UMS-G SERIES

The wienet Gigabit Ethernet Switches series was designed primarily to satisfy the requirements of high-performance IP devices. With Power over Ethernet (PoE) ports, end devices such as cameras can be powered through the same transmission medium.



- + Allow communication between Ethernet-capable devices
- + Relay information to the correct destination
- + Are supplied with fixed configuration
- + Full gigabit power on all ports
- + Connect peripheral devices in network extensions
- + PoE+ support, i.e. full 30 Watt on every PoE port
- + Star-topology network installation within the control panel



PERFORMANCE FEATURES

- + Switch method: Store and forward switching mode
- + Switch functions: Autocrossing, Autonegotiation
- + Power supply: Redundant power supply
- + Bandwidth: Fast Ethernet & Gigabit Ethernet
- + Connection: Pluggable terminals
- + Number of ports: 5 to 20 ports
- + Installation: Top hat rail mounting



UNMANAGED GIGABIT SWITCHES · WIENET UMS-G

TECHNICAL DATA



Description	wienet	UMS 5G	UMS 5G-L	UMS 5G-4PoE	UMS 5-C-4G-1SFP-W
Art. No.		83.040.0130.0	83.040.0130.1	83.040.0131.0	83.040.1256.0
Technical data Ethernet					
Number of ports		5	5	8	5
10/100 RJ45		-	-	-	-
10/100/1000 RJ45 RJ45		5	5	8	4
SFP		-	-	-	1
PoE		-	4	-	-
Switch properties					
Transmission type		Store and Forward	Store and Forward	Store and Forward	Store and Forward
Autonegotiation		Yes	Yes	Yes	Yes
Autosensing		Yes	Yes	Yes	Yes
Autopolarity		Yes	Yes	Yes	Yes
Communication		Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex
Ethernet Standards IEEE		802.3/802.3u/x/ab/z/az 802.1 q/p	802.3/802.3u/x/ab/z/az 802.1 q/p	802.3/802.3u/x/ab	802.3/802.3u/x/ab/z
QoS support, prioritization of Profinet packets		yes	yes	yes	-
Broadcast storm protection		-	-	-	-
Transmission length		100 m	100 m	100 m	Ethernet: 100 m Optical: 10 km
Topology		Line, star, mesh	Line, star, mesh	Line, star, mesh	Line, star, mesh
Packet Buffer Size		1 Mb	1 Mb	-	1 Mb
Flow Control		Back pressure and pause frame-based flow control schemes	Back pressure and pause frame-based flow control schemes	Back pressure and pause frame-based flow control schemes	-
MAC Address Table		8 K	8 K	-	2 K
Jumbo Frame		10 K Bytes	10 K Bytes	9 K Bytes	10 K Bytes
LLDP (Link Layer Discovery Protocol)		Forwarding	Forwarding	-	-
Technical features					
Operating voltage min.-max.		12 to 52 V DC	12 - 52 V DC	9 - 30 V DC	12 - 48 V DC
Redundant power supply		2 power inputs	2 power inputs	2 power inputs	2 power inputs
Power consumption max.		4.5 W	6 W	4.5 W	2.5 W
Output with PoE ports max.		-	120 W	-	-
Relay output max.		0.5 A / 24 V DC	0.5 A / 24 V DC	-	1 A / 24 V DC
Operating temperature min.-max.		-40 °C...+70 °C	-40 °C...+70 °C	-10 °C...+70 °C	-40...+75°C
Storage temperature min.-max.		-40 °C...+85 °C	-40 °C...+85 °C	-40 °C...+85 °C	-40°C...+85°C
Rel. humidity during operation min.-max. (non-condensing)		5 - 95 %	5 - 95 %	5 - 95 %	10 - 95 %
Terminal type		Push-in terminal, pluggable	Push-in terminal, pluggable	Push-in terminal, pluggable	Push-in terminal, pluggable
Norms and approvals		FCC Part 15 Class A, CE, UL, cULus, EN50155, UL61010-2-201	FCC Part 15 Class A, CE, UL, cULus, UL/IEC 62368-1	FCC Part 15 Class A, CE, UL, cULus, EN50155, UL61010-2-201	FCC Part 15 Class A, CE, UL, cULus, UL 62368
Montageart		DIN Rail	DIN Rail	DIN Rail	DIN Rail
Protection class		IP30	IP30	IP30	IP30
Werkstoff des Gehäuses		Metal	Plastic	Metal	Metal
Dimensions					
Width (mm)		32	25	45	30
Height (mm)		90	94	90	140
Depth (mm)		110	72	90.5	95
Weight approx.		420 g	420 g	255 g	450 g

GENERAL TECHNICAL DATA FOR THE SERIES

Diagnosis display	LEDs
RoHs	Yes

UNMANAGED GIGABIT SWITCHES · WIENET UMS-G

TECHNICAL DATA



Description	wienet	UMS 6-C-1G-4PoE-1SFP-W	UMS 8G	UMS 8G-C	UMS 16-2G	UMS 20-16G-4SFP-W
Art. No.		83.040.1268.0	83.040.0106.0	83.040.1283.0	83.040.0160.0	83.040.1223.0

Technical data Ethernet

Number of ports	6	8	8	16	20
10/100 RJ45	4	-	-	14	-
10/100/1000 RJ45 RJ45	1	8	8	2	16
SFP	1	-	-	-	4
PoE	4	-	-	-	-

Switch properties

Transmission type	Store and Forward	Store and Forward	Store and Forward	Store and Forward	Store and Forward
Autonegotiation	yes	yes	yes	yes	yes
Autosensing	yes	yes	yes	yes	yes
Autopolarity	yes	yes	yes	yes	yes
Communication	Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex
Ethernet Standards IEEE	802.3/802.3u/x/802.1ab/z	802.3/802.3u/x/ab	802.3/802.3u/x/ab	802.3/802.3u/x/ab/802.1 p	802.3/802.3u/x
QoS support, prioritization of Profinet packets	-	yes	-	yes	-
Broadcast storm protection	-	-	-	-	-
Transmission length	Ethernet: 100 m Optical: 10 km	100 m	100 m	100 m	100 m
Topology	Line, star, mesh	Line, star, mesh	Line, star, mesh	Line, star, mesh	Line, star, mesh
Packet Buffer Size	1 Mb	-	-	2,75 Mb	4,1 Mb
Flow Control	-	Back pressure and pause frame-based flow control schemes	-	Back pressure and pause frame-based flow control schemes	-
MAC Address Table	2 K	-	-	4 K	8 K
Jumbo Frame	9 K Bytes	9 K Bytes	10 K Bytes	-	10 K Bytes
LLDP (Link Layer Discovery Protocol)	-	-	-	-	-

Technical features

Operating voltage min.-max.	12 - 48 V DC	9 - 30 V DC	12 - 48 V DC	12 - 48 V DC	12 - 48 V DC
Redundant power supply	2 power inputs	2 power inputs	2 power inputs	2 power inputs	2 power inputs
Power consumption max.	2 W	4.5 W	5.8 W	7.4 W	15 W
Output with PoE ports max.	90 W	-	-	-	-
Relay output max.	1 A / 24 V DC	-	1 A / 24 V DC	-	1 A / 24 V DC
Operating temperature min.-max.	-40 °C...+75 °C	-10 °C...+70 °C	-10 °C...+60 °C	-10 °C...+60 °C	-40 °C...+75 °C
Storage temperature min.-max.	-40 °C...+85 °C	-40 °C...+85 °C	-40 °C...+85 °C	-20 °C...+70 °C	-40 °C...+85 °C
Rel. humidity during operation min.-max. (non-condensing)	10 - 95 %	5 - 95 %	10 - 95 %	5 - 95 %	10 - 95 %
Terminal type	Push-in terminal, pluggable	Push-in terminal, pluggable	Push-in terminal, pluggable	Push-in terminal, pluggable	Push-in terminal, pluggable
Norms and approvals	FCC Part 15 Class A, CE, UL, cULus, UL 62368	FCC Part 15 Class A, CE, UL, cULus, UL60950-1, IEC62368-1	FCC Part 15 Class A, CE, UL, cULus, UL 62368	FCC Part 15 Class A, CE, UL, cULus, EN60950-1:2006, UL/IEC(CB) 60950/62368	FCC Part 15 Class A, CE, UL, cULus, NEMA TS2, IEC60950, UL61010-2-201
Montageart	DIN Rail	DIN Rail	DIN Rail	DIN Rail	DIN Rail
Protection class	IP30	IP50	IP30	IP30	IP30
Werkstoff des Gehäuses	Metal	Metal	Metal	Metal	Metal

Dimensions

Width (mm)	30	45	30	54	74
Height (mm)	140	90	140	113	152
Depth (mm)	95	90.5	95	135	105
Weight approx.	450 g	255 g	450 g	700 g	700 g

GENERAL TECHNICAL DATA FOR THE SERIES

Diagnosis display	LEDs
RoHs	Yes

INDUSTRIAL PROTOCOL SWITCHES

WIENET FS SERIES

wienet Industrial Protocol Switches make your machinery network part of the entire automation solution within the system environment. The switches are integrated into the hardware planning directly (with Profinet via GSDML file). Using these switches increases the performance level in your industrial Ethernet networks. The comprehensive diagnosis information means you have quality and capacity utilization in your network fully under control at all times.



- + In machinery networks in which PROFINET or Ethernet/IP is used
- + In machinery networks where simple handling of a managed switch is important
- + Managed switches especially for industrial communication protocols
- + Integrate directly into the automation environment
- + Integrated diagnosis functions up to Ethernet device level and port level



PERFORMANCE FEATURES

- + Switch method: Store and forward switching mode
- + Configuration: Web interface
- + Diagnosis: LEDs, web interface, SNMP, bus protocol relay alarm outputs
- + Power supply: Redundant power supply
Broad voltage input 8.4 - 52.8 V DC
- + Ambient temperature: -40 °C to +75 °C
- + Number of ports: 8 or 16 ports



INDUSTRIAL PROTOCOL SWITCHES · WIENET FS

TECHNICAL DATA



Description	wienet FS8-PN	wienet FS16-PN	wienet FS-EI
Art. No.	83.040.1510.0	83.040.1511.0	83.040.1500.0

Technical data Ethernet

Number of ports	8	16	8
10/100 RJ45	8	16	8

Switch properties

Industrial Ethernet protocol	ProfiNET	ProfiNET	EtherNet/IP
Transmission type	Store and Forward	Store and Forward	Store and Forward
Autonegotiation	Yes	Yes	Yes
Autocrossing (MDI/MDI-X)	Yes	Yes	Yes
Autosensing	Yes	Yes	Yes
Communication	Full Duplex / Half Duplex	Full Duplex / Half Duplex	Full Duplex / Half Duplex
Ethernet Standards IEEE	802.3/802.3u/802.3x/802.1D/ 802.1w/802.1p/802.1Q/ 802.3ad/802.3az	802.3/802.3u/802.3x/802.1D/ 802.1w/802.1p/802.1Q/ 802.3ad/802.3az	802.3/802.3u/802.3x/802.1D/ 802.1w/802.1p/802.1Q/ 802.3ad/802.3az
Topology	Lines, star, mains, ring, meshes	Lines, star, mains, ring, meshes	Lines, star, mains, ring, meshes
Packet Buffer Size	4.1 Mbits	4.1 Mbits	4.1 Mbits
Switch Fabric Speed	3.2 Gbps	3.2 Gbps	3.2 Gbps
Jumbo frame	9216 Bytes	9216 Bytes	9216 Bytes
VLAN	VLAN ID 1-4094	VLAN ID 1-4094	VLAN ID 1-4094
Port Mirroring	Per port, Multi source port	Per port, Multi source port	Per port, Multi source port
IP Multicast	IGMP Snooping v1/v2/v3, MLD Snooping, IGMP Immediate leave	IGMP Snooping v1/v2/v3, MLD Snooping, IGMP Immediate leave	IGMP Snooping v1/v2/v3, MLD Snooping, IGMP Immediate leave
Storm Control	Broadcast, Multicast, Unknown unicast	Broadcast, Multicast, Unknown unicast	Broadcast, Multicast, Unknown unicast

Technical features

Operating voltage min.-max.	8.4 - 52.8 V DC	8.4 - 52.8 V DC	8.4 - 52.8 V DC
Redundant power supply	2 power inputs	2 power inputs	2 power inputs
Power consumption max.	5.2 W	8 W	5.2 W
Relay output max.	0.5 A / 24 V DC	0.5 A / 24 V DC	0.5 A / 24 V DC
Operating temperature min.-max.	-40 °C...+75 °C	-40 °C...+75 °C	-40 °C...+75 °C
Storage temperature min.-max.	-40 °C...+85 °C	-40 °C...+85 °C	-40 °C...+85 °C
Rel. humidity during operation min.-max. (non-condensing)	10 - 95 %	10 - 95 %	10 - 95 %
Terminal type	Plug-in screw terminal	Plug-in screw terminal	Plug-in screw terminal
Mounting method	DIN rail	DIN rail	DIN rail
Protection class	IP30	IP30	IP30
Housing material	Metal	Metal	Metal

Dimensions

Width (mm)	43	74	43
Height (mm)	120	120	120
Depth (mm)	84	84	84
Weight approx.	550 g	670 g	550 g

GENERAL TECHNICAL DATA FOR THE SERIES

Diagnosis display	LEDs
RoHs	Yes
Norms and approvals	FCC Part 15 Class A, CE, UL, cULus



FUNCTIONAL TOUCH **PANELS**

WIENET HMI ECO

Touch panels are today used in many machines and systems for the visualization, operation, and diagnosis. By transferring the user habits from the consumer world into the automation world, the HMI ECO series has been especially developed for industrial requirements and needs.



- + Simple programming, configuration and quick commissioning via USB, Ethernet or Serial with hmi PLAN software free of charge
- + Event- and schedule-controlled processes, as well as scripts, enable the HMI to take on control tasks
- + Integrated data logger with graphical visualization and alarm notifications via mail
- + Allows up to 6 links with different PLCs via PROFINET, EtherNET/IP and Modbus
- + Seamless data transfer of variables, tags and variable addresses thanks to the well-thought-out solution of the HMI panel and samos® PRO safety controller
- + Individual and customized HMI panels available (MOQ >100 pcs)
- + Integrated Virtual Networking Computing (VNC) Server and MQTT Client



PERFORMANCE FEATURES

- + Resolution: up to 1024 x 768 pixels
- + Expanded temperature range: From -20 °C to +70 °C (depending on the model)
- + Design: IP66 / Nema 4
- + Screen sizes: 4.3", 7", 10", 12.1" and 15"
- + Programmable menu pages: > 7,000



EASY CONFIGURATION – HMI PLAN

Rely on the safe operation of your machine. hmi PLAN, our software for the HMI ECO panels, integrates software drivers for more than 40 manufacturers. Configuration will also be like child's play with hmi PLAN. Import your variables from samos® PLAN 6 into the software for easy configuration of your panel and avoid naming errors when creating the safety variables to shorten the commissioning time of your panel.



THE BENEFITS TO YOU:

- + Flexible structure with several applications
- + Conversion independent of variable
- + Non-volatile internal Memory
- + Advanced user management (definition of groups, use of RFID)
- + Real-time clock and data even after reboot
- + Alarm messages per e-mail
- + Recipe management
- + Data collection, sequence control, macros
- + Free software hmi PLAN
- + Integrated MQTT client and VNC server

PERFECT SOLUTION BUNDLE

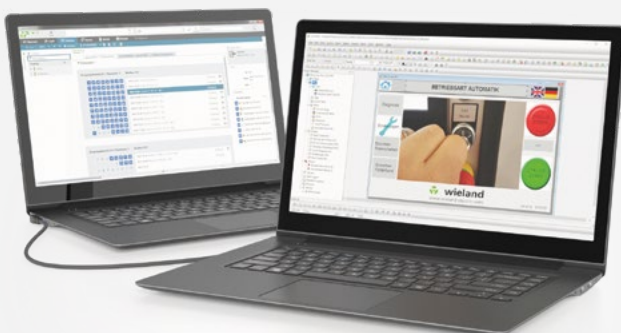
Together with samos® PRO COMPACT, we offer you a consistent, intuitive complete solution for your machines.

- + Programmable with hmi PLAN via Ethernet/USB
- + Convenient import of variables with samos® PLAN 6
- + On-board Modbus TCP in SP-COP2-ENI
- + Wieland driver in hmi PLAN for samos® PRO
- + Default settings in hmi PLAN
- + Easy toggling between Modbus master and slave



SEEMLESS DATA EXCHANGE

Rely on the import/export function of hmi PLAN with samos® PLAN and avoid errors when naming your safety functions.



- + Export of variables from samos® PLAN 6 with "one click"
- + Convenient import of tags in hmi PLAN
- + Automatic import of variable addresses
- + Considerably time-saving when troubleshooting

MY LOGO – CUSTOMER-SPECIFIC DESIGN

Our HMI touch panels are used to visualize, operate, and diagnose in many machines and systems. Together with our safety controller samos® PRO, the automation of entire systems is possible with HMI ECO.



15"

12,1"

10"

7"

4,3"

“MyLogo” offers you our panels in your own design. This ensures the consistent design of your machines.

CREATE YOUR OWN DESIGN IN A FEW STEPS

- + Get temporary offer
- + Select your RAL colors
- + Download and use of the DXF file template
- + Send customized design template to Wieland
- + Clarification and feedback of production/delivery time by Wieland
- + Get final offer
- + Validate and order final design (DXF file)



YOU HAVE THE CHOICE:

- Screen size
- BG Color
- Own logo
- Customized printing



VNC FUNCTIONALITY

Control via smartphone and tablet

With our HMI-ECO panels, it is now possible to control your machine with your smartphone or tablet. Virtual Network Computing (VNC) makes it possible. This gives you flexibility when it comes to controlling as well as to monitoring your machine.

YOUR ADVANTAGES AT A GLANCE

- + End devices for commissioning and diagnosis
- + Each panel serves as a VNC server
- + Remote control for the machine
- + Monitoring of the machine
- + Authentication by user level

TOUCH PANELS · WIENET HMI ECO

TECHNICAL DATA



Description	HMI-ECO-043	HMI-ECO-070	HMI-ECO-100	HMI-ECO-120	HMI-ECO-150
Art. No.	83.050.0000.0	83.050.0001.0	83.050.0002.0	83.050.0003.0	83.050.0004.0

Technical data					
Screen size	4.3" diagonal	7" diagonal (wide screen)	10" diagonal	12.1" diagonal	15" diagonal
Resolution	480 x 272 pixels	800 x 480 pixels	1024 x 600 pixels	1024 x 768 pixels	1024 x 768 pixels

Dimensions/weight					
Width (mm)	129	203.8	270.1	335.4	399.1
Height (mm)	103	148.8	212.1	245.8	297.6
Depth (mm)	33	37.1	43.5	58.2	57.5
Frame size (mm)	118.5 x 92.5	191.5 x 138	259 x 201	302 x 228	384.5 x 283
Weight approx.	230 g	550 g	1100 g	2000 g	3000 g

Technical features					
Programming software	hmiPLAN	hmiPLAN	hmiPLAN	hmiPLAN	hmiPLAN
Screen type	TFT color LCD with LED backlight	TFT color LCD with LED backlight	TFT color LCD with LED backlight	TFT color LCD with LED backlight	TFT color LCD with LED backlight
Touch technology	Resistive touch	Resistive touch	Resistive touch	Resistive touch	Resistive touch
Serial interface	1x Industrial Ethernet, 1x RS232, 1x RS422, 3x RS485	1x Industrial Ethernet, 1x RS232, 1x RS422, 4x RS485	1x Industrial Ethernet, 1x RS232, 1x RS422, 4x RS485	1x Industrial Ethernet, 1x RS232, 1x RS422, 4x RS485	1x Industrial Ethernet, 1x RS232, 1x RS422, 4x RS485
Number of colors max.	16 bits	16 bits	16 bits	16 bits	16 bits
Backlight life in hours	20000 h	20000 h	20000 h	50000 h	50000 h
Luminance	450 cd/m ²	450 cd/m ²	350 cd/m ²	500 cd/m ²	350 cd/m ²
CPU type	RISC ARM9 32 bit	RISC ARM9 32 bit	RISC ARM9 32 bit	RISC ARM9 32 bit	RISC ARM9 32 bit
Main memory max.	64 MB	64 MB	64 MB	64 MB	64 MB
USB 2.0	Host and client	Host and client	Host and client	Host and client	Host and client
Ethernet	RJ-45	RJ-45	RJ-45	RJ-45	RJ-45
Operating voltage min.-max.	24 V DC +- 10 % (insulated)	24 V DC +- 10 % (insulated)	24 V DC +- 10 % (insulated)	24 V DC +- 10 % (insulated)	24 V DC +- 10 % (insulated)
Power	10 W	20 W	20 W	20 W	20 W
Real time clock	Yes	Yes	Yes	Yes	Yes
Battery backed RAM	Yes	Yes	Yes	Yes	Yes
Operating temperature	-20...+70 °C	-10...+60 °C	-10...+60 °C	-10...+60 °C	-10...+60 °C
Storage temperature	-20...+70 °C	-20...+70 °C	-20...+70 °C	-20...+70 °C	-20...+70 °C
Rel. humidity during operation min.-max. (non-condensing)	10-90 %	10-90 %	10-90 %	10-90 %	10-90 %

GENERAL TECHNICAL DATA FOR THE SERIES	
Mounting method	Built-in component
IP rating (front)	IP66 / NEMA 4
Cooling	Natural Cooling with min. 50 mm distance
Shock	50 G, 11 Ms, X, Y, Z, direction (EN 60068-2-27)
RoHS	Yes
Norms and approvals	FCC Part 15 Class A, CE, cULus (cULus for size 12 & 15 only from Q4/2019)

ACCESSORIES

Antenna



Description	wienet ANTENNE 15863V2	wienet ANTENNE 15018	wienet ANTENNE 150181V2
Art. No.	F0.000.0035.1	F0.000.0036.1	F0.000.0036.2
General data			
Application	Mobile radio round beam roof antenna for indoors and outdoors	Magnetic holder for antennas with SMA/M connection	Mobile radio rod antenna
Technical data			
Frequency bands	GSM, GPRS, EDGE, UMTS, LTE	GSM, GPRS, EDGE, UMTS, LTE	GSM, GPRS, EDGE, UMTS, LTE
Gain max.	4 dBi	-	5 dBi
Connection	SMA/M	SMA/F (antenna), SMA/M (cable)	SMA/M
Cable	5 m	2.5 m	-
Dimensions, approx. in mm	82 x 48 x 48	42 x 50 Ø	Height approx. 240 mm
Installation	Including mast or wall mounting bracket	Magnetic holder	On magnetic holder or directly on device

Antenna



Description	wienet ANTENNE 15862V2	wienet ANTENNE 15854V2 WIFI MAGNET ANT.	wienet ANTENNE 15874V2 WIFI
Art. No.	F0.000.0037.6	F0.000.0037.4	F0.000.0037.5
General data			
Application	Mobile radio high-performance outdoor antenna for LTE	WLAN 2.4 GHz WIFI/WLAN rod antenna with magnetic holder	WLAN 2.4 GHz WIFI/WLAN roof/wall antenna for indoors and outdoors
Technical data			
Frequency bands	GSM, GPRS, EDGE, UMTS, LTE	2.4 GHz ISM band for WIFI/WLAN, Bluetooth, or Zigbee	2.4 GHz ISM band for WIFI/WLAN, Bluetooth, or Zigbee
Gain max.	5 dBi	4.8 dBi	4.8 dBi
Connection	2x SMA/M	SMA/M-RP	SMA/R
Cable	2x 5 m	2.5 m	5 m
Dimensions, approx. in mm	186 x 155 Ø	223 x 29	82 x 48 x 48
Installation	Including mast or wall mounting bracket	Magnetic holder	Including mast or wall mounting bracket

Extension for antenna



Type	Art. No.	PU
wienet Antenna 15815V2 Verlaeng. 10m	F0.000.0036.7	1
TECHNICAL DATA		
Cable length	10 m	
Cable type	low-loss cable	
Connection	1 x SMA socket, 1 x SMA connector	
Wave impedance	50 +/- 2 Ohm	
Outer diameter	5.6 mm	
Material	PVC	
Bending radius	30 mm	

ACCESSORIES

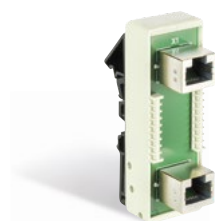
Programming adapter MPI-ETH ADAPTER ACCON-NETLINK-PRO



Type	Art. No.	PU
MPI-ETH ADAPTER ACCON-NETLINK-PRO	F0.000.0031.8	1

TECHNICAL DATA	
Supported operating systems	No restriction
Hardware requirements	Ethernet interface and TCP/IP protocol
Supported PLCs	S7-200, S7-300, S7-400
Weight in kg	Approx. 0.25
Protection class	IP20
Supply voltage	24 V DC $\pm$ 25 %
External power supply	Yes
Max. current consumption	150 mA
Galvanically insulated	Yes
Operating temperature	0 °C...60 °C
Storage/transport temperature	-20 °C...+90 °C
Admissible relative air humidity	5...85 % at 30 °C (no condensation)
Connection cable to the PLC	Permanently mounted, active (no stub line, 1.2 m)
Connection cable to PC/router	Patch cable (Ethernet, straight, 3 m)
Supported bus profiles	MPI, DP, standard, universal (DP/FMS), user-defined, with automatic detection
Supported transmission rates from bus connection to PLC	9.6 kbit/s to 12 Mbit/s with automatic detection
Supported Ethernet transmission rates	10/100 Mbit/s with automatic detection
Max. number of connections on TCP/IP	16

RJ45 interface module



Passive interface modules, RJ45 to RJ45, shield is also connected

Type	Art. No.	PU
wienet RJ45 Extender	80.000.3002.0	1

TECHNICAL DATA	
Connecting cable	STP Cat 5
Rated current	0.9 A
Rated voltage	50 V DC
Voltage resistance	300 V
Data rate	100 Mbit/s
Operating temperature range	-40 °C...+65 °C (85 °C max. 0.6 A)
Weight approx.	approx. 50 g
Pin assignment	1:1
Housings	Plastic PA 6.0 GK30
Installation	Top-hat rail
Dimensions (W x H x D)	25.3 x 46.5 x 80 mm
Connection type	2 x RJ45 socket

Patch-cables RJ45



Type	Art. No.	PU
wienet Patch-cables MOD ZBH RJ45 0,25 m	78.999.4000.0	1
wienet Patch-cables MOD ZBH RJ45 0,5 m	78.999.4100.0	1
wienet Patch-cables MOD ZBH RJ45 1,0 m	78.999.4200.0	1
wienet Patch-cables MOD ZBH RJ45 2,0 m	78.999.4300.0	1
wienet Patch-cables MOD ZBH RJ45 3,0 m	78.999.4400.0	1
wienet Patch-cables MOD ZBH RJ45 5,0 m	78.999.4500.0	1
wienet Patch-cables MOD ZBH RJ45 7,5 m	78.999.4600.0	1
wienet Patch-cables MOD ZBH RJ45 10 m	78.999.4700.0	1

DIN rail adapter for routers



Type	Art. No.	PU
wienet DIN RAIL CLIP LR/ER MET	F0.000.0053.8	1

ACCESSORIES

SFP Transceiver



Description	wienet SFP G MM VCSEL	wienet SFP G MM FP	wienet SFP G SM FP
Art. No.	83.040.0710.0	83.040.0711.0	83.040.0712.0
Technical data Ethernet			
Data rate	1250 Mbps	1250 Mbps	1250 Mbps
Wavelength	850 nm	1310 nm	1310 nm
Light source	VSCEL	FP	FP
Media type	Glass fiber multi mode	Glass fiber multi mode	Glass fiber single mode
Tx power	-9,5...-4 dbm with 50/125µm or 62.5/125µm fiber	-9,5...-1 dbm with 50/125µm or 62.5/125µm fiber	-9,5...-3 dbm with 9/125µm fiber
Rx sensitivity	-18 dbm	-19 dbm	-20 dbm
Link budget	8.5 dbm	10 dbm	10.5 dbm
Saturation	0 dbm	-1 dbm	-3 dbm
Distance	550 m	2 km	10 km
Ambient conditions			
Operating temperature	-40 °C...+85 °C	-40 °C...+85 °C	-40 °C...+85 °C
Certificates / Approvals			
	CE / UL	CE / UL	CE / UL

SFP Transceiver



Description	wienet SFP F/E (auto-neg) RJ45
Art. No.	83.040.0715.0
Technical data	
Data rate	10/100/1000 Mbps
Max. data transfer rate	1.25 Gbps
Auto-negotiation	Yes
Number of RJ45 ports	1
Media type	Copper
Standards	
IEEE 802.3ab 1000BASE-T	19 dbm
Distance	100m
Ambient conditions	
Operating temperature	0 °C...+70 °C
Certificates / Approvals	
	CE / UL

OUR **SECTOR KNOWLEDGE**

Wieland Electric is the world market leader for pluggable electrical installations. Our name stands for a trusting and successful cooperation with OEMs and partners. Our industry expertise is your security. Our solutions your benefit.



Machine and
system construction



Regenerative
energies



EV Charging
infrastructure

OUR **SOLUTIONS** RANGE

for machine building and plant engineering.



podis® – Power bus system
installed safely and decentral-
ized with high IP rating



RST® – Round connectors
offer highest reliability
with IP 69 rating



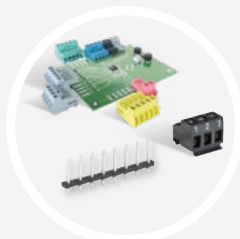
revos – Industrial connectors
for reliable power and
signal distribution



fasis + selos – Terminal
blocks for the perfect fit
in small spaces



Components and solutions
for the safety of machines
and plants



wiecon – extensive portfolio
of pluggable connectors for
circuit boards



wipos power supply and
power supply units in the
control cabinet and also in
use with renewable energies



Communication solutions via
VPN/Security Routers +
HMI panels as well as wienet
switches for a secure network



INFO TO GO

All brochures from Wieland Electric are available for download on our website.



<https://www.wieland-electric.com/en/support/downloads>

Interesting for you

BEHIND EV CHARGING

Die Systemlösung für eine innovative Ladeinfrastruktur
Part No. 0438.1



WIPOS FULL ENERGY

Power supplies for plant and machinery
Part No. 0821.1

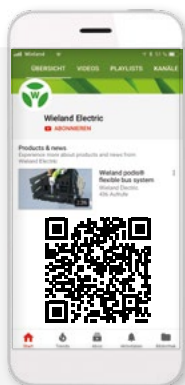


INDUSTRIAL SAFETY

Safe systems for mechanical engineering and intralogistics
Part No. 0860.1



Wieland on YouTube
See our solutions in motion



<https://www.youtube.com/user/WielandElectric>



Technical support
Industrial Solutions



Phone: +49 951 9324-991

Email: industry@wieland-electric.com

Worldwide: <https://wie.li/contactinternational>



ONLY ONE TAP AWAY

Our Wieland E-Shop

Over 25,000 products - anytime

In our online store you will find all the information about our products, prices, and technical data.

Order easily and conveniently online, and check availability.

<https://eshop.wieland-electric.com>



Scan QR code – view products in the E-SHOP.





wieland

HEADQUARTERS

Wieland Electric GmbH
Brennerstraße 10 – 14
96052 Bamberg · Germany

Phone +49 951 9324-0
Fax +49 951 9324-198
info@wieland-electric.com

0800.1 MC 07/25

Represented in over 70 countries worldwide:

www.wieland-electric.com